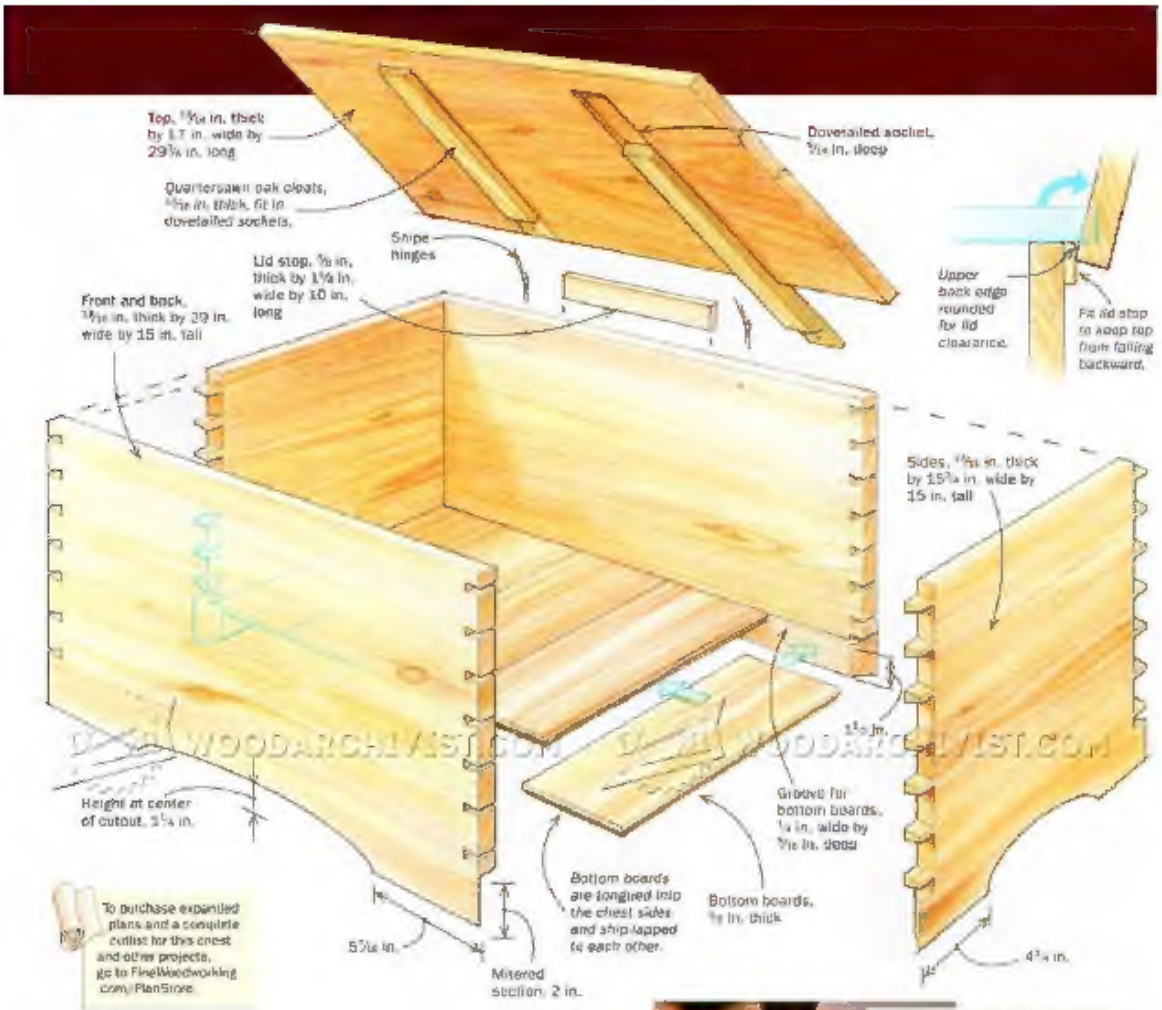
Blanket Chest by Hand

Hand tools and white pine make it a treat to build this country classic

BY ANDREW HUNTER

Trends in furniture come and go, but Early American country furniture endures. Country pieces, with their simplicity and practicality, can find a home in any setting, from an 18th-century farmhouse to a New York City loft. The clean, unpretentious designs, born of necessity, have an honesty that gives them lasting beauty. But for a woodworker, the real beauty of country furniture is in the making. Everything from fine dovetails to clinched nails is appropriate as joinery, and eastern white pine—the wood of choice for so much Colonial furniture, and my choice for this chest—is a dream to work.

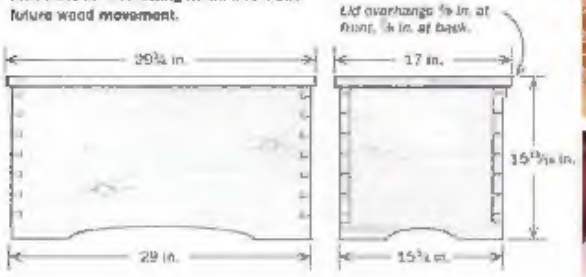
Country designs are ideal for building solely with hand tools, and the classic six-board chest is a great project for developing your skills. It is small enough not to overwhelm yet chock-full of enjoyable joinery. One can work without the pressure to be perfect. Imperfections and stray tool marks in a country piece only add to the feeling of authenticity. Although I'll demonstrate



To purchase expanded plans and a complete cutlist for this chest and other projects, go to FineWoodworking.com/PlanStore.

DOVETAILED PINE BLANKET CHEST

Leaving the dovetails ¹⁄₁₆ in. proud of the face adds an interesting detail and hides future wood movement.



START WITH THE GROOVE

After milling and cutting the boards to size, begin the chest by cutting the grooves for the bottom boards. A grooving plane makes short work of the task. Then create the cutouts at the bottom of the chest, sawing close to your layout lines with a bowsaw or coping saw and smoothing the surfaces with spokeshaves and chisels or files.

Dovetails by hand

These protruding dovetails also have a short miter at the bottom, giving the chest a clean base section.

1. LAYOUT

Mark and score. *Hunter lays out the dovetail pins with a mechanical pencil and a sliding bevel, then scores along the baseline, in the waste areas only, with a marking gauge (right).*

Mark the miters. *When you lay out the 45° miters on all four boards, begin at the baseline. The miter's tip should end 1/32 in. shy of the end of the board. The dovetails need the extra length, since they're proud.*

2. PINS COME FIRST

Rip the pins. *Hunter saws just shy of his layout line, then pares right to it, leaving the line for reference.*

Chop and pare. *Chop away the waste between the pins with heavy blows, leaving 1/16 in. or so along the baseline. Follow with paring cuts, starting with the tip of the chisel in the score line. Work from each face of the workpiece toward the middle to avoid blowout.*

using only hand tools, you can choose your battles depending on the skills you have or wish to develop.

Preparing the boards

My father and I sawed up a large white pine tree 10 years ago, and I've made a number of country pieces with those beautiful planks. But even though pine is my preference, any locally abundant, easily worked wood fits the bill for this project. And while I had the luxury of using full-width boards for my chest, you can always glue up narrower boards if wide boards are not available, matching two boards to look like one or simply using random boards for an uncalculated country look.

I milled all the stock for my chest with hand tools. Of course, you could mill your wood with a jointer and planer instead, and begin the hand-tool work after that. Once you have straight, flat boards, rip and crosscut the four main boards and the lid to their final dimensions. But leave the bottom boards and the lid cleats wide and long for now.

Construction work begins at the bottom

Start the joinery by laying out and cutting the grooves for the bottom boards and the cutouts that form the feet. Locate the grooves in the mitered section of the corner joints, so they can be through-grooves, which are much easier to cut. Plow these grooves before you make the cutouts so you still have the bottom edge of the sides to use as a reference surface. I used a grooving plane with a fence for this job. Alternately, you could use a panel saw with a guide block and a chisel.

Next come the arched openings. To lay them out, I made templates cut from cereal-box cardboard. I first drew a number of curves freehand, and when I had one I liked, I made a template from it. To be sure the two ends of the cutout were mirror images,

3. TAILS FOLLOW

Two-step layout. *With the pin board simply standing along the baseline on the tail board, Hunter makes a short pencil mark inside each pin cheek. Then he removes the pin board and extends the marks with a sliding bevel.*

I made the template for just half the opening and used it to lay out both sides. I cut out the curves with a bowsaw and followed it up with spokeshaves and chisels to smooth the cut and fair the curves. You could use a coping saw, or even make multiple relief cuts with a handsaw and chisel away the waste. The best tool is the one you have—sticking to it and doing your very best.

Story pole simplifies joinery layout

Accurate layout is the most important part of the project, and I try to focus all my attention while I'm doing it. After that I can relax a little and just enjoy working wood—all I have to worry about is not going over the lines.

Start by laying out the baselines for the dovetails on all four boards in pencil with a sliding square. Because the dovetails will be proud, set the square to the thickness of the stock plus ⅛ in. Leaving the dovetails proud is not just an aesthetic choice. Over time, as the wood moves, joints that are cut flush don't stay exactly that way, and protruding joinery will accommodate any such changes. With the baselines marked, locate the pins and the mitered foot with a story pole. Using a story pole will ensure that all four corners of the chest are laid out identically.

I drew the pin cheeks using a bevel gauge set to about 14°. Then I used a marking gauge to score the baseline of the pins. The tail layout walks, since you'll trace the tails from the pins. Take care when laying out the mitered foot—because the dovetails are proud, they'll extend ⅛ in. past the point of the miter.

Create the dovetail pins

I used a Japanese ripsaw to cut the cheeks of the dovetail pins, but of course a Western saw will get the job done, too. I cut the dovetails while sitting on a stool with the board lying on my bench. This puts the workpiece at eye level for great control of the cut.

With the cheeks sawn, begin chopping away the waste between the pins, chiseling about ⅛ in. from the scored base-

Saw, chop, and pare. *Saw close to your lines, and then chop out the waste, staying away from the baseline. Last, pare to all of your layout lines.*

4. MITER THE FEET

Cut all of the miters now. *Cut the mitered faces first with a ripsaw. Then saw in from the side to cut the waste free. Use paring cuts with a chisel to clean up the miters, and fit one to the next.*

Assemble the case

After a few final steps and a dry-fit, you can glue up the whole case in one shot.

PREP THE PARTS

Final touches before assembly. *With all the joinery cut, Hunter creates a glassy finished surface with light passes of a Japanese smoothing plane (left) and chamfers all exposed edges.*

Tiny chamfers are a big help. *Chamfered edges give the good dovetails a distinctive look and also make assembly go more smoothly.*

RABBET THE BOTTOM BOARDS

Quick rabbets. *To cut the tongues and shiplaps on the bottom boards, Hunter fits his rabbet plane with a simple shopmade fence. To prevent tearout on cross-grain cuts, he scores the workpiece with a cutting gauge.*

line. Be sure the workpiece is well supported beneath, since any give will steal force from the chisel blow. Working in soft wood, such as pine, there's a greater tendency for end-grain tearout. To minimize it, use low blade angles on sharp chisels and give firm blows, working from both sides toward the middle. To protect my bench, I support the board at both ends on scraps of ¼-in. plywood.

After chopping close to the baseline, pare away the rest of the waste, lowering the chisel point into the scored line. Then pare the cheeks, working up to the pencil line but leaving it as a reference.

Pins generate the tails

To trace the pins, lay the tail board on the bench with its outside face down. Then stand the pin board along the tail board's shoulder line. If the pin board has any cup, use a caul and clamps to keep it straight while you are tracing. The joinery will keep the boards flat after assembly.

With the pin board in place, make a short pencil mark to register the location of each pin. Then remove the pin board and use the bevel gauge to complete the lines. Use a square and the bevel gauge again to transfer the layout to the scored face. When you've finished the layout on all four joints, saw the tail cheeks. Then use a narrow chisel to chop close to the baselines. Because the space between the tails is so narrow, I used a narrow chisel, tapped into the end grain, to split the waste so I could remove it as I chopped. After paring to the baselines, pare the cheeks as well.

The last part of the joint to be cut is the mitered section at the foot. First, with the workpiece clamped so the feet are pointing

GLUE UP THE CASE

Knock home the ends. *After applying hide glue to the cheeks of the pins, Hunter hammers home the joint. Then he installs the bottom boards. Scraps of ¼-in. plywood under the case accommodate the through-dovetails.*

up, make the angled crosscut. Then clear the waste with an angled upcut. Clean up the sawcuts by paring with a chisel.

Getting ready for glue-up

Before assembling the corner joints, put a slight chamfer on the ends of the pins. Go slow with the test-fitting, using light blows and a scrap block to protect the project. If the going is tough, separate the parts by hammering down on the tail board, check for excessive denting, and pare where necessary. When you've made the bottom boards, dry-fit the case to see that they are a good fit.

Once all the parts are fitted, disassemble the chest and use a smoothing plane set very fine to put a finished surface on all the parts. Then plane a small chamfer on the exposed edges. Handplaning the surfaces was my final finish—I didn't apply any coating. The sheen of the wood is from the keenness of the plane blade, and the lustrous surface will attain a rich patina over time. Dents, scratches, and stains will attest to its years of usefulness.

Bringing the box together

Assemble the chest with a bit of glue on the pins only, and try to keep any squeeze-out to the inside where it can be cleaned with a chisel after it dries. I used hide glue, which gives me more time for assembly and also means that in the future parts can be reglued, since new hide glue will bond with old.

I did the glue-up with the back of the chest lying facedown on the bench. I fit the two ends to it, and then fit the bottom boards. I didn't use any glue on the bottom boards, although you could put a dab at the center of each one, as long as you ensure there's a gap between them to allow for seasonal movement.

Put a lid on it and add appropriate hinges

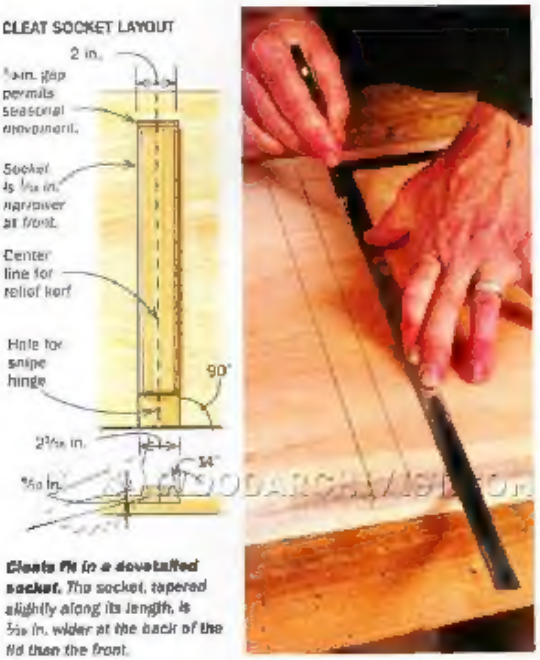
Two quartersawn hardwood cleats in dovetailed sockets keep the chest's lid flat yet allow for seasonal movement. To excavate the

Proof and square. *Seat the joints with a scrap block placed just inside the pins. Then measure the diagonals to check for square (below). If necessary, pull the chest into square by lightly clamping from corner to corner.*

Top it off

Tapered dovetailed cleats are the backbone of the lid. Simple snipe hinges are its elbow joints.

CLEATS KEEP THE LID FLAT



Cleats fit in a dovetailed socket. *The socket, tapered slightly along its length, is 3/16 in. wider at the back of the lid than the front.*

sockets. I started with a saw and finished with chisels. I used a Japanese pistol saw, which has a narrow blade, enabling me to start a cut in the middle of the board.

After sawing, clean out the waste with a long chisel or a router plane. Then plane the cleat to its layout lines and test the fit in the socket. The cleat should stop ¼ in. before the closed end of the socket to allow the lid to move with the seasons. Hammer the cleat home and mark it to length. Also mark where the back edge of the cleat will need to be relieved to allow the lid to sit flat. Remove the cleat one last time and make the two cuts. The cleat, which gets no glue, is fixed at the back end by the snipe hinge.

Cotter-pin or "snipe" hinges, common in Colonial furniture, are a simple way to attach the lid, and they function quite nicely, with the added benefit of securing the cleats. You can make them from ⅛-in. steel rod or simply use cotter pins from the hardware store. To install the hinges, drill holes where the back and top meet, centered on the cleats. Loop the cotter pins together and slide them through their holes. With pliers, fold the tips outward 90°. Then hammer each leg over, supporting the blows from below. □

Andrew Hunter builds furniture in Accord, N.Y.

Automatic angle. *A block of scrap cut to a 14° angle guides the saw to cut the dovetail socket. Hunter draws a line on the sawblade with an erasable marker to gauge the depth of cut.*

Rough removal. *Working toward himself with the bevel down, Hunter chisels out all the waste, first on one side of the central relief cut, then on the other.*

Out comes the long chisel. *Hunter flattens the bottom of the cleat socket with a long, wide paring chisel. He checks his progress with a straightedge.*

CREATE THE CLEAT

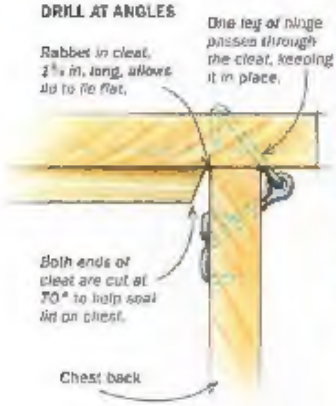
Angled guide block produces the cleat angle. Hunter bevels a scrap block at 14° and uses it like a shooting board to angle the sides of the cleat. He makes the cleats from quartersawn red oak for maximum strength and stability.

Drive it home. Adjust the fit of the cleat until you can drive it in with moderate hammer blows. Wax helps. Leave a ⅛-in. gap at the front end of the socket to allow for seasonal movement of the lid.

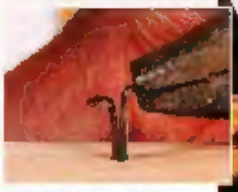
Trim the cleat. When you are satisfied with the cleat's fit, mark it at the back edge of the lid and cut it to length. Then remove it and cut a notch (inset) so the lost section lies flush with the lid.

INSTALL THE HINGES

DRILL AT ANGLES



Drill for the hinges. Snipe hinges—two linked cotter pins—suit this chest. With the lid weighted, drill an angled hole up through the chest and lid. Then remove the lid and drill the other hole through the back of the chest.



Clinch the deal. With the pins linked, push one through the back, the other through the lid. With the lid closed, use pliers to crimp the ends of the lid pin and clinch it with a hammer. Then open the lid and crimp and clinch the mating pin.